



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
SAM NUNN
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA GEORGIA 30303-8960

July 22, 2010

Mr. Raleigh Bland
Regulatory Division
U.S. Army COE
Wilmington District
P.O. Box 1000
Washington, NC 27889

**Subject: Comments on the Final Environmental Impact Statement (FEIS) for the
Town of Nags Head, Beach Nourishment Project in Dare County, NC
(CEQ Number: 20090418, ERP Number: COE-E39078-NC)**

Dear Mr. Bland:

Pursuant to Section 309 of the Clean Air Act (CAA) and Section 102(2)(C) of the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) Region 4 has reviewed the Final Environmental Impact Statement (FEIS) for the Town of Nags Head Beach Nourishment Project (CEQ Federal Register Date: 7/2/2010), located in Dare County, NC. We previously provided scoping comments (letter dated June 3, 2009) and Draft EIS comments (letter dated January 21, 2010) for this project. We understand that the U.S. Army Corps of Engineers (COE), Wilmington District, Regulatory Division, has received a request for Department of the Army authorization, pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899, from the Town of Nags Head to dredge up to 4.6 million cubic yards of beach-quality sandy material from an offshore borrow source, and deposit the material along approximately 10 miles of ocean shoreline in the Town of Nags Head, beginning approximately 1 mile from the town's northern limit and extending south to the town line adjacent to the Cape Hatteras National Seashore. EPA notes that a public scoping meeting was held on April 28, 2009 and public and agency comments were appropriately solicited for input in the preparation of both the Draft and Final EIS.

As the proposed Nags Head project requires approvals from both Federal and State agencies under both the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA), a joint FEIS has been prepared. The FEIS is serving as the NEPA document for both the COE's 404 permit and as the SEPA document for the State of North Carolina's 401 permit. The FEIS states that the COE has coordinated closely with the North Carolina Division of Coastal Management, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service in the development of the FEIS to ensure the process complies with State Environmental Policy Act (SEPA) requirements, as well as the federal NEPA requirements. At the time this EPA comment letter on the FEIS was being prepared, the State of North Carolina had already issued the

401 Water Quality Certification Permit and completed the Coastal Zone Consistency Determination by issuing the Coastal Area Management Act Permit. The State of North Carolina's Department of Environment and Natural Resources (NCDENR)'s Division of Coastal Management has also issued a Record of Decision (ROD) on the proposed project (February 17, 2010), and this has been included in the FEIS at Attachment #3. The ROD states that EIS "does adequately address potential impacts associated with the project." NCDENR's Coastal Resources Commission has also already issued a permit (Permit Number 45-10) which authorizes this "major development in an Area of Environmental Concern" (pursuant to NCGS 113A-118) and allows "excavation and/or filling" (pursuant to 113-229).

The Town of Nags Head, which encompasses approximately 11 miles of ocean shoreline on a barrier island located at the northern end of North Carolina's Outer Banks. The applicant's stated purpose and need for the proposed action is to nourish the Town of Nags Head's ocean shoreline to restore a protective beach and to help preserve property values and the tax base of Dare County. The width of the berm of the island's dune system varies considerably with location along the town's beach and with the season. Along most of the project area, EPA notes that the winter berm is almost non-existent due to continuing erosion processes, and that dune habitat is currently decreasing due to excessive erosion of the base or toe of the dunes by waves that travel unimpeded over eroded wet beach to directly impact dunes.

EPA understands that the proposed borrow area is located in the Atlantic Ocean approximately 2-3 miles offshore of the project site, and that the applicant (the Town of Nags Head) proposes to utilize a self contained hopper dredge during a proposed construction window from April through September 2011 to undertake the dredging operations and discharge the sand on the beach via submerged pipeline. In addition, the applicant's proposed offshore borrow area (Offshore Area S1) includes sites identified in the U.S. Army Corps of Engineers, Wilmington District's previous EIS, entitled "Final Feasibility Report and Environmental Impact Statement on Hurricane Protection and Beach Erosion Control" (dated September 2000). The Town of Nags Head's beach nourishment project will be funded by a combination of local, county, and/or state sources, and no federal funds will be used for this project.

The anticipated optimal equipment for excavations will include ocean-certified, self-contained hopper dredges, which are proposed to excavate shallow trenches (approximately 2-3 foot sections) in each pass (leaving narrow undisturbed areas at the margin of each cut), then travel to a buoyed pipeline anchored close to shore. Discharge to the beach is via submerged pipeline across the surf zone, then by way of shore-based pipe positioned along the dry beach. EPA notes that only a small area of the Corps borrow area will be required to provide up to 4.6 million cubic yards of beach quality material. The applicant has reportedly coordinated the specific area for use in the proposed project with the Corps with the following conditions:

- The final borrow area required for the emergency beach nourishment project will be limited to the equivalent of a 0.9 square-mile (approximately 575 acres) area.

- The borrow area used will be contiguous rather than a series of small impact areas.
- Once used, the borrow area will no longer be available for use, consistent with the adjacent Dare County Project.
- The borrow area will be delineated so as to avoid ongoing biological monitoring stations established by the Corps in connection with the Dare County Project.

EPA understands that the applicant has committed to build the project in approximately 1-2 mile sections, with a focus on optimizing the disposition of pipeline. Sections will be pumped into place with the aid of temporary dikes pushed up by bulldozers in the surf zone. Daily operations will impact no more than 500-1,000 linear feet of shoreline as work progresses in either direction from the submerged pipeline. Upon completion of a section, the submerged pipe and beach-building equipment will be shifted to the next section. As construction progresses, sections will be graded to final contours, dressed to eliminate low areas, and opened for use by the public recreational use. Support equipment will be shifted out of completed sections as soon as practicable, so that construction activities in a particular reach will not disrupt normal beach use for only a month or so at any locality. The finished sections will be allowed to adjust to natural processes for several months. EPA understands that the final process will include the placement of dune fencing and/or dune plantings as needed or required.

EPA notes that the applicant appropriately considered three alternatives, and these are fully addressed in the DEIS:

1. The “No Action Alternative” - meaning that existing property would be abandoned as erosion naturally encroaches over time on buildings and the community’s infrastructure.
2. The “Relocation Alternative” - meaning that threatened structures and infrastructure would be fully relocated where needed.
3. The “Beach Nourishment Alternative” - meaning the beach will be restored and therefore recreational areas lost to erosion will be provided greater separation between the existing properties and the ocean.

EPA’s review has found that the following required information was appropriately included in the EIS process:

- Based upon the proposed impacts to waters of the United States, the Town of Nags Head, and their consultant, Coastal Science & Engineering, appropriately developed a detailed Environmental Impact Statement (EIS) for the proposed Project, and appropriately included these NEPA-required elements: Alternatives analyses, affected environment, environmental consequences, and identification of direct, secondary, and cumulative environmental impacts.
- Along most of the project area, the winter berm is practically nonexistent due to sustained severe erosion processes, and dune habitat has been noted to be decreasing due to excessive erosion of the base (toe) of the dunes by waves “that travel unimpeded over previously eroded wet beach” to directly impact these

important dunes. The DEIS and FEIS both document continuing losses totaling over 2 million cubic yards over the last 15 years.

- The proposed borrow area has been sampled and tested for beach compatibility. Water depths in the borrow area are approximately 40-55 feet. The FEIS appropriately noted that geotechnical investigations confirmed the quality of the sandy material in the borrow area. Subareas 1, 2, and 3 potentially contain about 13.5 million cubic yards of beach-quality sediment, and overall, S1 potentially contains about 100 million cubic yards of beach-quality material. Sediment characterization for 14 recipient beach transects along Nags Head, North Carolina showed an average sand content of 96.1%, and only 0.1% fines (silt, clays, mud <0.0625 mm).
- Surface waters and jurisdictional wetland areas were appropriately identified for the proposed project site. Field reviews of the project area have confirmed that there are no vegetated freshwater or coastal wetlands located in the project area.

EPA had the following specific comments on the DEIS, and after reviewing the FEIS, we are providing follow-up comments to our original comments:

EPA Comment #1 for the DEIS

Council on Environmental Quality (CEQ) regulations (40 CFR 1502.14(a)) require an EIS to "rigorously explore and objectively evaluate all reasonable alternatives" for a proposed action. The regulations (40 CFR 1502.14(b)) further require that substantial treatment be made of each alternative considered in detail, including the proposed action. This DEIS appropriately includes an extensive Alternatives Analysis that was performed and then reviewed for technical accuracy. This analysis appropriately included the evaluation of (1) a "no action" alternative, (2) a "retreat and relocate" alternative (e.g., abandon property, retreat, and relocate) (3), and the preferred alternative. The DEIS also appropriately describes the preliminary alternatives that were identified and evaluated throughout the scoping process, and includes detailed descriptions of all of these.

EPA Follow-up on Comment #1:

None.

EPA Comment #2 for the DEIS

CEQ regulations (40 CFR 1502.15) require an EIS to describe the environment of the areas to be affected (or created) by the alternatives under consideration. The data and analysis in this DEIS was found to be commensurate with the importance of the impacts, although EPA still has some concerns about the potential impacts from use of a hopper dredge on marine threatened and endangered resources (e.g, potential for entrainment of sea turtles associated with hopper dredges).

EPA Follow-up on Comment #2:

EPA strongly recommends the applicant's rigorous adherence to the USFWS Biological Opinion and Take Statement (Attachment #1 in the FEIS), as well the implementation of the NMFS Essential Fish Habitat Conservation Recommendations (Attachment #2 in the FEIS). EPA concurs with the applicant's proposed use of additional turtle protection

measures to include "on-board observers," and we approve of the inclusion of this requirement in the State's major CAMA permit (issued on April 29, 2010). EPA also approves of the use of the turtle protection protocols for incidental takes, to include the suspension of dredging and consultation with USFWS and NMFS if a take does occur.

EPA Comment #3 for the DEIS

When the final borrow area is selected, EPA requests notification including detailed map(s) of this area. The borrow area should be fully delineated in order to avoid active biological monitoring stations established by the COE as part of the Dare County Project. EPA concurs with the DEIS statement that, once used, the borrow area will no longer be available for future use.

EPA Follow-up on Comment #3:

A detailed map of the final borrow area and the final biological monitoring plan should be forwarded to EPA before construction. The applicant should include with the transmittal the reports of sampling of the preferred borrow areas 2 and 3, as well as the control areas.

EPA Comment #4 for the DEIS

The project should be coordinated (to avoid conflicts) with monitoring efforts led by the North Carolina Recreational Water Quality Program (NCDWQ - RWQ), which regularly tests these coastal waters in order to protect public health by monitoring and notifying the public when bacteriological standards for safe bodily contact are exceeded. Also, the project should be coordinated with the North Carolina Department of Environmental and Natural Resources (NCDENR), Division of Environmental Health, Shellfish Sanitation Section, which also is continually monitoring and classifying these coastal waters as to their suitability for shellfish harvesting for human consumption.

EPA Follow-up on Comment #4:

EPA understands that the applicant met on February 24, 2010 with NCDENR and NCDWQ - RWQ to brief them on the project and coordinate future monitoring activities during construction. EPA recommends that the applicant stay in very close contact with NCDWQ and NCDENR during all phases of the project.

EPA Comment #5 for the DEIS

The final EIS should include geotechnical information, especially representative boring logs and/or grain size analysis plots from soil borings conducted in the finalized borrow area.

EPA Follow-up on Comment #5:

EPA notes the inclusion of the additional sediment grain size analysis and the detailed offshore boring logs.

EPA Comment #6 for the DEIS

Proposed mitigation measures are outlined in the DEIS (given in detail in the attachments), and appropriately include specific measures recommended by USFWS and

NMFS for protection of threatened and endangered species. The finalized mitigation plan should be provided to EPA. Also, EPA requests that we be provided the specific finalized protocols to be employed should any sea turtles be encountered during the dredging activity. EPA concurs with USFWS (Biological Opinion dated August 18, 2008) that a work schedule that avoids the seas turtles' nesting and hatching period is beneficial (e.g., the cool weather months).

EPA Follow-up on Comment #6:

EPA notes that the CAMA permit includes specific monitoring and aquatic species protection requirements and protocols. We note that the NC Division of Marine Fisheries-approved biological monitoring plan is provided in the EIS. It is EPA's understanding that the NC Division of Coastal Management has also approved this plan.

Thank you for the opportunity to provide comments on this FEIS. A detailed map of the final borrow area and the final biological monitoring plan should be forwarded to EPA before construction. The applicant should include with the transmittal the reports of sampling of the preferred borrow areas 2 and 3, as well as the control areas. If you wish to discuss these comments or have any other questions, please contact me at (404) 562-9611 (mueller.heinz@epa.gov) or Paul Gagliano, P.E., of my staff at (404) 562-9373 (gagliano.paul@epa.gov).

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management